Appendix G, Table 2. Numerical Criteria to Protect Beneficial Uses and All Subcategories Thereof

Parameter	CAS Number	Fish & Wildlife Propagation		Public & Private Water Supply	Public & Private Water Supply & Fish Consumption	
		Acute	Chronic	Raw Water	Water & Fish Consumption (+ Other Organisms)	Fish Consumption (+ Other Organisms)
Inorganics		**µg/L**	**µg/L**	**µg/L**	**µg/L**	**µg/L**
Antimony	77440360				5	600
Arsenic III	7440382	340	150	40		205.0
Barium	7440393			1000		
Cadmium (Dissolved)	7440439	e(1.0166[ln(hardness)]-3.924)*[1.136672-0.041838 ln(hardness)]	e(0.7409[ln(hardness)]-4.719)*[1.101672-0.041838 ln(hardness)]	20	14.49	84.13
Chromium (total)				50	166.3	3365.0
Chromium (III) (Dissolved)	16065831	e(0.819[ln(hardness)] + 3.7256)*0.316	e(0.819[ln(hardness)] +0.6848)*0.860			
Chromium (VI) (Dissolved)	18540299	16	11			
Copper	7440508	e(0.9422[ln(hardness)]-1.3844)	e(0.8545[ln(hardness)]-1.386)	1000		
Cyanide	57125	45.93	10.72	200		
Fluoride @ 90° F				4000		
Lead	7439921	e(1.273[ln(hardness)] -1.460)	e(1.273[ln(hardness)] -4.705)	100	5.0	25.0
Manganese	7439965				50	100
Mercury	7439976	2.4	1.302	2	0.050	0.051
Nickel (Dissolved)	7440020	e(0.846[ln(hardness)] + 2.255)*0.998	e(0.8460[ln(hardness)+0.0584)*0.997		607.2	4583.0
Nitrates (as N)	14797558			10,000		

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Parameter	CAS Number	Fish & Wildlife Propagation		Public & Private Water Supply	Public & Private Water Supply & Fish Consumption	
		Acute	Chronic	Raw Water	Water & Fish Consumption (+ Other Organisms)	Fish Consumption (+ Other Organisms)
Inorganics		**µg/L**	**µg/L**	**µg/L**	**µg/L**	**µg/L**
Selenium (Footnote 3)	7782492	~~20.0~~	~~5~~	10		
Lotic Waters (Dissolved)			3.1 (Footnote 4)			
Fish Tissue (whole body)			8.5 (mg/kg dry weight) (Footnote 5)			
Fish Tissue (muscle)			11.3 (mg/kg dry weight) (Footnote 5)			
Silver (Dissolved)	7440224	e(1.72[ln(hardness)] -6.59)*0.85 (Footnote 1)		50	104.8	64620.0
Thallium	7440280	1400.0 (Footnote 2)			0.24	0.47
Zinc (Dissolved)	7440666	e(0.8473[ln(hardness)]+0.884)*0.978		5000		

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2 This criterion was adopted as a magnitude value only.

Parameter	CAS Number	Fish & Wildlife Propagation		Public & Private Water Supply	Public & Private Water Supply & Fish Consumption	
		Acute	Chronic	Raw Water	Water & Fish Consumption (+ Other Organisms)	Fish Consumption (+ Other Organisms)
Inorganics		**µg/L**	**µg/L**	**µg/L**	**µg/L**	**µg/L**

3 The selenium criterion for the protection of the Fish & Wildlife Propagation beneficial use is a single chronic criterion composed of three elements. The three criterion elements are 1) dissolved total selenium in lotic waters, 2) fish tissue whole-body, and 3) fish tissue muscle.

4 The water column value is the applicable criterion element in the absence of steady-state condition fish tissue data. The water column element is applied as a 30-day average not to be exceeded more than once every three years on the average.

5 Fish tissue elements are expressed as steady-state. Fish whole-body or muscle tissue supersedes the water column element when both fish tissue and water concentrations are measured. Fish whole-body or muscle tissue elements are instantaneous measurements not to be exceeded that reflect the integrative accumulation of selenium over time and space in a fish population(s) at a given site.

Parameter	CAS Number #	Fish & Wildlife Propagation		Public & Private Water Supply	Public & Private Water Supply & Fish Consumption	
		Acute	Chronic	Raw Water	Water & Fish Consumption (+ Other Organisms) ~~and Water~~	Fish Consumption (+ Other Organisms)
Organics		µg/L	µg/L	µg/L	µg/L	µg/L
1,1,1,-Trichloroethane ~~TCE-~~	71556				~~3,094.0~~12,000	~~173,100.0~~180,000
1,1,2-Trichloroethane	790005				5.5	89
1,1-Dichloroethylene	75354				300	20,000
1,2,4-Trichlorobenzene	120821				0.71	0.76
1,2-Dichlorobenzene	95501				1,000	3,000
1,2-Dichloroethane	107062				99	6,500
1,2-Dichloropropane	78875				9	310
1,2-Trans-Dichloroethylene	156605				100	4,000
1,3-Dichloropropene	542756				2.7	120
1,4-Dichlorobenzene	106467				300	900
2,4,5-Trichlorophenol	95954				300	600
2,4,5,-TP (Silvex)	93721			10		
2,4,6-TNT		450.0 (Footnote 2)				
2,4,-Dichlorophenoxyacetic acid~~D~~	94757			100		
2,4-Dimethylphenol	105679				100	3,000
2,4-Dinitrotoluene	121142				0.49	17
2-Chloronaphthalene	91587				800	1,000
Acenaphthene	83329				70	90
Acrolein	107028				~~6.0~~3	~~9.0~~400
Acrylonitrile	107131	7550.0 (Footnote 2)			~~0.51~~0.61	~~2.5~~70
Aldrin	309002	3.0 (Footnote 1)			~~0.000049~~0.0000077	~~0.000050~~0.0000077

Parameter	CAS Number #	Fish & Wildlife Propagation		Public & Private Water Supply	Public & Private Water Supply & Fish Consumption	
		Acute	Chronic	Raw Water	Water & Fish Consumption (+ Other Organisms) ~~and Water~~	Fish Consumption (+ Other Organisms)
Organics		µg/L	µg/L	µg/L	µg/L	µg/L
alpha-Hexachlorocyclohexane	319846				0.0036	0.0039
Anthracene	120127				300	400
Benzene	71432		2200.0 (Footnote 2)		~~22~~3	~~510~~90
Benzidine	92875			1		
Benzo(a)Pyrene	50328				0.0012	0.0013
Benzo(b)Fluoranthene	205992				0.012	0.013
beta-Endosulfan	33213659				20	40
Bis(2-Chloro-1-Methylethyl) Ether	108601				200	4,000
Bromoform	75252				70	1,200
Carbon Tetrachloride	56235				~~2.3~~4	~~16~~50
Chlordane	57749	2.4 (Footnote 1)	0.17 (Footnote 1)		~~0.0080~~0.0031	~~0.0081~~0.0032
Chlorobenzene	108907				100	800
Chlorodibromomethane	124481				8	210
Chloroform	67663				~~56.69~~60	~~4708.0~~2,000
Chlorpyrifos (Dursban)	2921882	0.083	0.041			
Chrysene	218019				1.2	1.3
4,4'-DDD	72548				~~0.0031~~0.0012	~~0.0031~~0.0012
4,4'-DDE	72559				0.00018	0.00018
4,4'-DDT	50293	1.1 (Footnote 1)	0.001 (Footnote 1)		~~0.0022~~0.0003	~~0.0022~~0.0003
Demeton	8065483		0.1			
Detergents (total)				200		
Diazinon	333415	0.17				
Dichlorobromomethane	75274				~~5.5~~9.5	~~170~~270

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		Acute	Chronic	Raw Water	Water & Fish Consumption (+ Other Organisms) ~~and Water~~	Fish Consumption (+ Other Organisms)
Organics		µg/L	µg/L	µg/L	µg/L	µg/L
Dieldrin	60571	0.24	0.056		~~0.00052~~0.000012	~~0.00054~~0.000012
Dinitrophenols	25550587				10	1,000
Dioxin (TCDD)	1746016				5.0E-08	5.1E-08
Endosulfan		0.22 (Footnote 1)	0.056 (Footnote 1)			
Endrin	72208	0.086	0.036	0.2	~~0.059~~0.03	~~0.060~~0.03
Ethylbenzene	100414				~~530~~68	~~2100~~130
Fluoranthene	206440				20	20
Fluorene	86737				50	70
gamma ~~BHC~~ Hexachlorocyclohexane (Lindane)	58899	0.95		4	~~0.98~~4.2	~~1.8~~4.4
Guthion	86500		0.01			
Heptachlor	76448	0.52 (Footnote 1)	0.0038 (Footnote 1)		~~0.00079~~0.000059	~~0.00079~~0.000059
Heptachlor Epoxide	1024573				0.00032	0.00032
Hexachlorobenzene	118741				~~0.0028~~0.00079	~~0.0029~~0.00079
Isophorone	78591				340	18,000
Malathion	121755		0.10			
Methoxychlor	72435		0.03	100		
Methylene blue active substances				500		
Methyl Bromide	74839				100	10,000
Methylene Chloride	75092				40	3,000
Mirex	2385855		0.001			
Nitrobenzene	98953				10	600
Nonylphenol	25154523	28	6.6			
Parathion	56382	0.065	0.013			

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		Acute	Chronic	Raw Water	Water & Fish Consumption (+ Other Organisms) ~~and Water~~	Fish Consumption (+ Other Organisms)
Organics		µg/L	µg/L	µg/L	µg/L	µg/L
PCB			0.044		0.00064	0.00064
PCE (Tetrachloroethylene)	127184	5280.0 (Footnote 2)			~~6.9~~30	~~33~~70
Pentachlorophenol	87865	e[1.005(pH)-4.869]	e[1.005(pH)-5.134]		~~2.7~~0.3	~~30~~0.4
Perchlorate	7601-90-3	6600 (Footnote 2)	1800 (Footnote 2)		9	
Phenol	108952				~~10,000.0~~4,000	~~860,000.0~~300,000
Phthalate esters				3		
Bis(2-ethylhexyl) phthalate (BEHP)	117817				~~12~~3.2	~~22~~3.7
Butylbenzyl phthalate	85687			150	~~1500~~1	~~1900~~1
Diethyl phthalate	84662				~~17000~~600	~~44000~~600
Dimethyl phthalate	131113				~~2.7E+05~~2,000	~~1.1E+06~~2,000
Di-*n*-Butyl phthalate	84742				~~2000~~20	~~4500~~30
Pyrene	129000				20	30
RDX	121824	2591.5 (Footnote 2)				
Toluene	108883		875.0 (Footnote 2)		~~1300~~57	~~15000~~520
Toxaphene	8001352	0.78	0.0002	5		
Trichloroethylene	79016				3	30
Vinyl Chloride	75014				0.22	16

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